

ABSTRACT OF THE DISCLOSURE

A positive charge of a sensor element is charged in a signal converting circuit, is converted into a positive  
5 voltage, and is outputted. When the polarity of the charge of the sensor element is inverted to the negative and an output of the signal converting circuit is decreased, the leaked charges are superimposed and become the negative. An automatic correction circuit detects the negative output and  
10 discharges the charges so as to set the input to "0". Thus, the offset of the signal level due to the charge leakage is automatically corrected.